REMARKS

Claims 1 to 15 were pending
Claims 16 to 18 have been added herein
Claims 1, 12 and 15 are independent
Claims 1 to 18 will be pending upon entry of this amendment

Claims 1 to 7 and 11 to 15 stand rejected under 35 U.S.C. Section 103(a) as unpatentable over U.S. Patent No. 6,284,006 to Siefering et al. (hereinafter "Siefering") in view of U.S. Patent No. 3,866,926 to Traum (hereinafter "Traum"), and U.S. Patent No. 5,381,014 to Jeromin et al. (hereinafter "Jeromin"). Claims 7 and 8 stand rejected under 35 U.S.C. Section 103(a) as unpatentable over Siefering, Traum and Jeromin in further view of U.S. Patent No. 4,531,047 to Canfield et al. (hereinafter "Canfield"). Applicants respectfully traverse these rejections.

Applicants' claims each recite a thermally isolating interface made of metal. Although the Examiner acknowledges that Siefering does not teach using a metallic insulator plate, the Examiner asserts that it would be obvious to substitute a metallic insulator plate for the non-metallic insulator plate 76 described in Siefering. The Examiner incorrectly reasons that even though the insulator plate 76 described in Siefering is specifically identified as being made of a non-metallic material, it would have been obvious to instead use metal, such as stainless steel, for the insulator plate merely because other parts of the apparatus are made from stainless steel. The Examiner appears to have ignored the fact that a metallic plate would be conductive and not provide the insulating effect Siefering clearly intended to achieve by specifying the use of a non-metallic material. Thus, Siefering clearly teaches away

from using a metal insulator plate, one of ordinary skill would not have been motivated to do the opposite of that which the Siefering reference teaches, and therefore the Examiner's substitution is untenable. Based on the absence of a proper motivation, and further, a teaching away, Applicants respectfully assert that the Examiner has failed to meet the burden of establishing a prima facie case of obviousness and respectfully request withdrawal of the Section 103 rejection of Applicants' claims for this reason.

Further, Applicants claims recite a thermally isolating interface made of metal that includes a beveled recess that forms "a thermally isolating volume." The thermally isolating volume in a metal interface is what reduces the amount of heat conducted by the metal interface so that the interface of the present invention has the desired insulating effect. As the Examiner acknowledges, Siefering does not teach or suggest including any kind of recess in the insulator plate 76 to form a thermally isolating volume. Because the insulator plate 76 of Siefering is a non-metallic fluorocarbon material, it appears that an adequate insulating effect is already achieved according to Siefering. In fact, a thermally isolating volume formed by thinning a portion of the plate (e.g., by creating a recess therein) may be counterproductive in that the non-metallic material (which may be less conductive than a volume of air) may become significantly less insulating as it is made thinner. Thus, the Examiner's assertion that one of ordinary skill considering the insulator plate 76 of Siefering, which is specifically disclosed as being non-metallic, in light of the non-metallic phenolic resin carburetor gasket of Traum would not necessarily have been motivated to create recesses in the insulator plate 76 of Siefering. In other words, the

possibility of degradation of the insulating effect (by thinning the non-metallic insulator plate 76 of Siefering) would teach away from putting a recess in the Siefering insulator plate. Thus, since the Examiner has not shown that the non-metallic materials used for the insulator plate 76 of Siefering are less conductive than a thinned non-metallic insulator plate with an air filled volume and Siefering does not appear to disclose the dimensions of the insulator plate 76, the assertion that there is a suggestion to provide recesses based on the carburetor gasket of Traum (which appears to use a different non-metallic material than Siefering) is unfounded. In other words, despite the Examiner's assertion to the contrary, it is not at all clear, and the Examiner has not shown, that a recess in the nonmetallic insulator plate 76 of Siefering would have an insulating effect in the same way the recesses in the carburetor gasket of Traum has an insulating effect. Thus, there is no motivation to make the Examiner's combination since it is not clear whether the proposed combination would be operative to provide the desired insulating effect. Therefore, Applicants respectfully again assert that the Examiner has failed to meet the burden of establishing a prima facie case of obviousness and respectfully request withdrawal of the Section 103 rejection of Applicants' claims for this additional reason.

Further, even if the Examiner had supported the assertion that the carburetor gasket of Traum reference suggests including recesses in Siefering's plate, which she has not, the Examiner still would not have established a prima facie case of obviousness. The Examiner's Section 103(a) rejections are not tenable because the Examiner has not provided a proper motivation to combine the references to form the Examiner's combination. The Examiner merely asserts that:

It would have been obvious to . . . have provided recesses with an air occupying volume in Seifering et al. in order to define heat insulating cavities as taught by Traum.

The Examiner has merely listed a feature of a reference and asserted that the feature provides the motivation to combine. This is not an adequate motivation. The mere presence of recesses in the Traum gasket does not suggest adding recesses into the insulator plate 76 of Seifering. The Examiner asserts that there is motivation/reasoning to combine the references merely because "thermal isolation is being addressed." The Examiner is respectfully reminded that merely because two different solutions (e.g., using an insulating material vs. using insulating cavities) appear to differently address similar issues in two different references, does not mean that there is a suggestion to combine the two different solutions. Therefore, Applicants again respectfully assert that the Examiner has failed to meet the burden of establishing a prima facie case of obviousness and respectfully request withdrawal of the Section 103 rejection of Applicants' claims for this additional reason.

Further, the Examiner appears to be asserting that the two different solutions are obvious to combine because the references concern analogous art. While both Siefering and Traum concern thermal isolation, they do so in completely different contexts with very different attendant concerns. For example, an automobile carburetor is not an equivalent environment to a substrate transfer chamber. Therefore, despite the Examiner's apparent assertion to the contrary, Applicants assert that the references are from non-analogous fields and thus, the Examiner has not provided a proper motivation to combine the references. Applicants respectfully request

withdrawal of the Section 103 rejections for this additional reason.

Further, the Examiner concedes that neither Siefering nor Traum teach that the recesses include beveled edges as recited in Applicants' claims. The Examiner relies upon Jeromin for the teaching that a bevel surface can be used between two abutting surfaces to reduce contact surface area. As with Traum, the Examiner appears to merely rely on the existence of a feature of Applicants' claims being present in the Jeromin reference as providing a motivation to combine the Jeromin reference with the other references. Here the Examiner is asserting that bevels in the edge of x-ray imager substrates suggests including bevels in the edges of recesses in a carburetor gasket. The Examiner does not provide any explanation as to why the recesses in a carburetor gasket could not simply be made larger to reduce contact surface area instead of adding bevels to reduce contact surface area. Thus, the Examiner has not provided a proper motivation to combine the references. Applicants respectfully request withdrawal of the Section 103 rejections for this additional reason.

Further, the Jeromin reference's teachings do not appear to fall into an analogous field of art much less any field of art related to either of the other references or Applicants' invention. In fact the teachings do not even appear to address thermal isolation. Therefore, despite the Examiner's apparent assertion to the contrary, Applicants assert that the references are from non-analogous fields and thus, the Examiner has not provided a proper motivation to combine the references. Applicants respectfully request withdrawal of the Section 103 rejections for this additional reason.

Applicants have added Claims 16 to 18. Each of these claims recite that the cross-section of "the beveled recess includes a saw tooth pattern shape" which is clearly not taught or suggested by any of the relied upon references. Support for these new claims may be found at least in Fig. 7 and the associated text of Applicants' specification. No new matter has been added to Applicants' application with these amendments.

Applicants believe all of the claims are in condition for allowance, and respectfully request reconsideration and allowance of the same. Applicants have indicated any additional amount due regarding this amendment in the transmittal filed herewith. If any other fees are required, however, please charge Deposit Account No. 04-1696. If any petition for extension of time is required, please accept this sentence as a request for additional time to respond and charge Deposit Account No. 04-1696 any required fees. Applicants encourage the Examiner to telephone the Applicant's attorney should any issues remain.

Respectfully Submitted,

Steve M. Santisi, Esq. Registration No. 40,157

Dugan & Dugan, PC

Attorneys for Applicants

(914) 332-9081

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Tarrytown, New York